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President's Page: Quality, Appropriateness and Outcomes—How Accurate Are Our Measures?

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In a recent issue of *The New England Journal of Medicine* there is an editorial by Jerome Kassirer, Editor-in-Chief, and two accompanying articles, which I think should be required reading for every doctor interested in what is happening to our profession.

In "The Quality of Care and the Quality of Measuring It" (1), Kassirer suggests that if Clinton reform becomes law, physicians and health plans will soon be competing on the basis of quality as well as cost. Fundamental to this concept is the assumption that we know what quality is and how to measure it, monitor it and ensure it. Kassirer agrees that this is a prospect devoutly to be wished, but asks this decisive question—"how valid is the proposition that we really know what quality is and how to measure and monitor it?"

Developing standards of quality against which physicians and health care organizations will be judged has become a huge industry. This industry performs outcomes research and develops guidelines and appropriateness criteria with which to control medical decisions and practice. A physician who fails to adhere to these criteria must at the very least justify any deviation. There may follow denial of payment and perhaps sanctions. In spite of all this, Kassirer asserts that we have largely neglected to ask whether these tools are valid, worth the investment and really ready for widespread implementation.

In his article, Charles Phelps (2) explores the methodologic basis for studies of appropriateness of medical care. He describes disquieting variations in studies which estimate rates of appropriate use of procedures such as angiography, endoscopy and bypass surgery. These variations, based on retroactive studies, may range from 4% to 40%. Phelps reminds us that the credibility of appropriateness studies cannot be validated until the sensitivity and specificity of the methodology used can be defined. He adds that retrospective appropriateness evaluations cannot substitute for careful analysis of the actual effectiveness of medical treatment.

Perhaps the most impressive of the articles was a critique of the outcomes movement titled "What Physicians Know," written by Sandra Tanenbaum of the Ohio State University School of Medicine (3). She begins with a review of expectations from outcomes research. The impact of the outcomes movement is so great that statistical probability is fast becoming the dominant precondition for defining effective clinical medicine. Knowledge from outcomes data is all too often considered superior to both what a physician has learned from experience and the cause and effect reasoning of traditional medical science. The outcomes movement exaggerates its usefulness by understating several problems. First is the commitment of time and money to determine the effectiveness of many common and evolving medical procedures. Second is the difficulty for physicians to apply outcomes data to specific clinical situations while making the multiple consecutive decisions that characterize patient care. It is an interesting paradox that a PhD, non-physician, asks a question that somehow clinicians have not asked—"how much clinical intelligence will be lost in such a rigid system"?

Outcomes research is supposed to reflect medicine as it is actually practiced rather than under the rigorous conditions of clinical trials. For this reason the outcomes movement claims to be more relevant to health policy than results of controlled trials. The outcomes movement is expected to control what Tanenbaum calls the legendary wastefulness of the U.S. health care system, and to justify policies which regulate medical practice. This expectation is fueled by belief in the superiority of statistical data over all other forms of knowledge and advocates molding physician behavior by

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"hortatory, economic, and regulatory means." This article is a philosophic challenge to the outcomes movement. Tanenbaum suggests that physicians should assert the legitimacy, indeed the necessity of reasoning about individual patients on the basis of personal experience and theories of cause and effect, as well as on the basis of statistical data.

These observations are especially pertinent to our present discussions of health care reform. By mistaking a part of medical knowledge for the whole, the outcomes movement devalues clinical expertise and ultimately clinical medicine itself.

Until recently, our medical system was dominated by reliance on intelligence and thoughtful decision making by individual doctors. Now we are moving toward what Kassirer calls "codifying the practice of medicine," and in part we are doing this in the name of quality. The essence of Kassirer's editorial and the articles by Phelps and Tanenbaum is that before we embrace evolving methods of measuring and monitoring quality, we must be sure that they are equal to their intended tasks and that the benefits of standardization are worth the cost.

I find it startling that spirited defense of clinical medicine and rarely heard critiques of the outcomes movement and appropriateness studies come not from those who practice medicine, but from an editor and two PhDs.

Outcomes studies and appropriateness research, without question, have a very important role to play in clinical practice. But perhaps they do not deserve the bandwagon approach which seems to be so much a part of the American way of dealing with problems. Just as we reject slavish devotion to decisions based only on clinical experience and judgment, so must we reject blind adherence to outcomes and appropriateness studies without considering their potential for error.

Managed care organizations are in constant search for ways to limit coverage. To this end, outcomes and appropriateness data have become license to control physician behavior. Third parties and managed care organizations must be reminded that outcomes and appropriateness research are not exempt from the fallibility which they are so quick to attribute to clinical judgment.

References

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